

Title (en)
METHOD AND DEVICE FOR CONFOCAL MEASUREMENT OF DISPLACEMENT, VELOCITY OR FLOW AT A POINT OF A SAMPLE AND USES THEREOF

Title (de)
VERFAHREN UND VORRICHTUNG ZUR KONFOKALEN MESSUNG VON VERSCHIEBUNG, GESCHWINDIGKEIT ODER DURCHFLUSS AN EINEM PUNKT EINER PROBE UND VERWENDUNGEN DAVON

Title (fr)
PROCÉDÉ ET DISPOSITIF DE MESURE CONFOCALE DE DÉPLACEMENT, DE VITESSE OU D'ÉCOULEMENT AU NIVEAU D'UN POINT D'UN ÉCHANTILLON ET LEURS UTILISATIONS

Publication
EP 3517978 A1 20190731 (EN)

Application
EP 18382037 A 20180124

Priority
EP 18382037 A 20180124

Abstract (en)
The invention relates to a method and device for the confocal measurement of the displacement, velocity or flow at a given point of a sample and uses thereof. Said method comprises a first source (11) illuminating a sample (1), making it visible to acquisition means (12); a second source (13) emitting a second light beam; a diaphragm (15) modifying said second light beam, providing a beam with a circular approximation which is redirected to a microscope objective (16); the acquisition means (12) capturing a first part of the signal reflected by the sample (1) and the second source (13) receiving a second part of the signal reflected by the sample (1); and a computer system (18) measuring the displacement, velocity or flow on a vertical, horizontal or arbitrary plane of the sample (1) using said second part, wherein the spatial resolution of the measurement is adjusted by modifying the diameter of the diaphragm (15) and a numerical aperture of the microscope objective (16), depending on the sample (1) to be measured.

IPC 8 full level
G01P 5/26 (2006.01); **G01S 17/58** (2006.01)

CPC (source: EP)
G01P 5/26 (2013.01); **G01S 17/58** (2013.01)

Citation (applicant)
• EP 0707823 B1 20001108 - ZEISS CARL [DE], et al
• US 9200887 B2 20151201 - POTSAID BENJAMIN MICHAEL [US], et al

Citation (search report)
• [Y] WO 9804924 A1 19980205 - RIVA CHARLES E [CH], et al
• [Y] CN 102564909 B 20140507 - ANHUI INST OPTICS & FINE MECH
• [Y] CN 201397302 Y 20100203 - UNIV SHANGHAI SCIENCE & TECH
• [Y] US 6233045 B1 20010515 - SUNI PAUL J M [US], et al
• [YD] US 5501226 A 19960326 - PETERSEN CHRISTOPHER L [US], et al

Cited by
CN111537765A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3517978 A1 20190731; WO 2019145341 A1 20190801

DOCDB simple family (application)
EP 18382037 A 20180124; EP 2019051588 W 20190123